



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Cond °C	Cooling Capacity, kW									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	2.39									
25.0	2.32	2.95								
30.0	2.20	2.81	3.51	4.33						
35.0	2.09	2.68	3.34	4.12	5.04	6.13	6.62			
40.0	1.99	2.55	3.18	3.91	4.78	5.81	6.28	7.03		
45.0		2.42	3.02	3.71	4.52	5.49	5.93	6.65		
50.0		2.29	2.85	3.50	4.27	5.18	5.59	6.26		
55.0			2.70	3.30	4.01	4.86	5.24	5.87		
60.0				3.10	3.75	4.54	4.89	5.48		
65.0				2.89	3.50	4.22	4.55	5.09		
70.0					3.24	3.90	4.20	4.70		
75.0					2.98	3.58	3.85	4.31		

50 Hz

ZBD21KCE-TFD

R134a

Cond °C	Power, kW									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	0.94									
25.0	0.98	1.02								
30.0	1.06	1.10	1.15	1.20						
35.0	1.14	1.20	1.25	1.30	1.36	1.43	1.46			
40.0	1.21	1.29	1.35	1.40	1.46	1.53	1.56	1.62		
45.0		1.38	1.46	1.52	1.58	1.64	1.68	1.72		
50.0		1.48	1.58	1.66	1.72	1.78	1.80	1.85		
55.0			1.69	1.78	1.86	1.93	1.96	2.00		
60.0				1.92	2.01	2.09	2.12	2.16		
65.0				2.05	2.17	2.26	2.29	2.34		
70.0					2.33	2.44	2.47	2.52		
75.0					2.48	2.62	2.66	2.72		

Cond °C	Current at 400 V, A									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	2.31									
25.0	2.39	2.47								
30.0	2.54	2.63	2.71	2.80						
35.0	2.68	2.79	2.88	2.97	3.06	3.18	3.24			
40.0	2.82	2.95	3.05	3.14	3.23	3.33	3.38	3.46		
45.0		3.11	3.23	3.33	3.42	3.51	3.55	3.62		
50.0		3.26	3.40	3.52	3.61	3.70	3.74	3.79		
55.0			3.57	3.70	3.81	3.90	3.94	3.99		
60.0				3.89	4.01	4.11	4.15	4.20		
65.0				4.07	4.22	4.33	4.37	4.42		
70.0					4.41	4.54	4.59	4.65		
75.0					4.59	4.75	4.81	4.87		

Cond °C	Suction Mass Flow, g/s									
	-20.0	-15.0	-10.0	-5.0	0.0	5.0	7.0	10.0	12.5	15.0
22.0	14.60									
25.0	14.55	18.10								
30.0	14.50	18.05	22.10	26.70						
35.0	14.45	18.05	22.10	26.60	31.90	38.10	40.80			
40.0	14.50	18.10	22.10	26.60	31.80	37.80	40.50	44.90		
45.0		18.15	22.10	26.60	31.70	37.60	40.30	44.60		
50.0		18.30	22.20	26.60	31.60	37.40	40.00	44.30		
55.0			22.30	26.60	31.50	37.30	39.80	44.00		
60.0				26.70	31.50	37.10	39.60	43.70		
65.0				26.90	31.50	37.00	39.40	43.50		
70.0					31.70	37.00	39.30	43.30		
75.0					31.90	37.00	39.40	43.20		

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

Displacement @ 50 Hz, m <sup>3</sup> /h	8.35
Length/Width, mm	243/243
Height, mm	432
Net Weight, kg	30.2
Rotalock Suction, inch	1 1/4
Rotalock Discharge, inch	1
Oil Quantity, l	1.24
Oil type (original charge)	POE RL32-3MAF
Oil type (approved oils)	POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC
Base mounting (hole dia), mm	190 x 190 (19)
Sound Pressure @ 1m (MT), dBA	58
Sound Power (MT), dBA	69
Sound Power with Sound Shell (MT), dBA	59
Sound Conditions (MT, Temperatures:	-10 / 45 / 20 °C at 50 Hz
Evap./Cond./Suction at freq./speed)	
PED Category	1
Max. Low Side Internal Free Volume, l	4.1
Max. High Side Internal Free Volume, l	0.5
Max. Internal Free Volume, l	4.60
High Side PS gauge, bar	32
Low Side PS gauge, bar	21
Refrigerant's GWP	1430
Refrigerant's classification	A1

### **COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)**

Maximum Operating Current, A	6.7
Locked Rotor Current, A	40
Winding Resistance, ohm	4.83
Default Enclosure Class	IP 21 (IEC 34)

### **ACCESSORIES INCLUDED**

Mounting Grommets	Standard
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### **ACCESSORIES OPTIONAL**

Crankcase Heater	70 W External
Discharge Temperature Protection	Discharge line thermostat
Oil Control System	ALCO Trax-Oil OM3
Sound Attenuation	Sound Shell (10dBA)
Valve Coil	220V
Solenoid Valve Kit	220 V Ac 12" lead Length
Digital Control Kit	EC2-552
Solenoid valve	Standard
Valve Coil	24V AC
Solenoid Valve Kit	24 V Ac 12" lead Length
Digital Control Kit	EC3-652
Digital Tubing Kit	24 V 0.3m Rotalock
Digital Driver	EC3-D13
Mounting Grommets	Hard Mounts for Paralleling
Digital Tubing Kit	220 V 0.3m Rotalock

### **MOTOR OPTIONS**

<b>Motor Code</b>	<b>Power Supply</b>	<b>Nominal Voltage, V</b>	<b>Start Connection</b>	<b>DOL Connection</b>	<b>Amps Factor</b>
TFD	380-420 V / 3~ / 50 Hz	400		Y	1.00
TF5	200-220 V / 3~ / 50 Hz	200		Y	2.09
TFD	460 V / 3~ / 60 Hz	460		Y	1.04
TF5	200-230 V / 3~ / 60 Hz	230		Y	2.09